

REMARKS

Claims 1-7, 9-15, 17-18, 20-21, and 23-28 are pending. By this Amendment, Claims 1-7, 9-15, 17-18, and 20-21 are amended; Claims 8, 16, 19, and 22 are canceled without prejudice or disclaimer; and Claims 23-28 are added. Applicant respectfully submits no new material is presented herein.

Claims Rejected—35 U.S.C. § 102

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 1,481,853 to Alexanderson ("Alexanderson"). Applicant respectfully traverses the rejection.

Claim 1 recites a system for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit, the system including, among other features, a frequency converter connected to an electrical power network.

Alexanderson teaches a ship's propulsion system and a method of braking one or more motors of the propulsion system and then reversing a rotational direction of the one or more motors. The propulsion system includes an elastic fluid turbine (1) arranged to directly drive a revolving field (2) of a synchronous generator having a stator (3). The stator (3) is connected to stators (4, 4') of propeller driving motors (5, 5'), respectively. The propeller driving motors (5, 5') are connected to the generator via a network of wires, switches, and resistors.

However, Applicant submits that Alexanderson does **not** disclose or suggest each and every feature recited in Claim 1. Particularly, Alexanderson does **not** disclose or suggest a frequency converter connected to an electrical power network. The Office Action argues that page 2, lines 10-23 of Alexanderson discloses a frequency converter.

However, page 2, lines 10-23 of Alexanderson merely describes the excitation state of the motor during braking as well as the method steps for braking the motor. Therefore, contrary to the Office Action's assertion, the apparatus of Alexanderson does **not** disclose or suggest a frequency converter.

Further, Applicant submits that Alexanderson does not disclose or suggest disconnecting the propeller motor (propeller driving motors (5, 5')) from an electrical power network and short-circuiting the stator windings of the propeller motor, as recited in Claim 1. Such features are completely absent from Alexanderson. Moreover, Applicant submits that the description on page 2, lines 45-50 of Alexanderson does **not** describe disconnecting the propeller drive motors (5, 5') from an electrical power network and short circuiting the stator windings of the propeller driving motors (5, 5'), contrary to the Office Action's assertion.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. Because Alexanderson does not disclose or suggest each and every feature recited in Claim 1, Applicant respectfully submits that Alexanderson does not anticipate Claim 1.

Claims 2-7 and 23 depend directly from Claim 1 and, hence, incorporate each and every feature recited therein. Therefore, Applicant respectfully submits that Claims 2-7 and 23 should be deemed allowable for at least the same reasons Claim 1 is allowable, as well as for the additional subject matter recited therein.

Accordingly, Applicant respectfully requests withdrawal of the rejection.

Claims Rejected—35 U.S.C. § 103

Claims 9-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,592,412 to Geil et al. ("Geil") in view of Alexanderson. Applicant respectfully traverses the rejection.

Claim 9 recites a system for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit, including, among other features, at least one motor unit including a magnetization device and stator windings; an electrical power network; and a switch arrangement for disconnecting the at least one motor unit from the electrical power network and for short circuiting the stator windings of the at least one motor unit.

Geil teaches a propelling and driving system for boats having an outboard rudder propeller.

However, Applicant respectfully submits that Geil and Alexanderson, either alone or in combination, do not teach or suggest each and every feature recited in Claim 9. Particularly, Applicant respectfully submits that Geil does not teach or suggest a switch arrangement for disconnecting the at least one motor unit from the electrical power network and for short-circuiting the stator windings of the at least one motor unit, as recited in Claim 9. The Office Action argues that Geil teaches such features in column 15, lines 17-27. However, column 15, lines 17-27 of Geil merely describes how a failed **subsystem** is disconnected on an input side from the ship's on-board power supply network by means of a circuit breaker and subsequently grounded. The subsystem is described in column 14, lines 47-57 of Geil and does **not** include a motor.

Moreover, Figure 2, which corresponds to the portion of Geil cited by the Office Action, includes only a **single** motor, and column 14, lines 24-27 states that the fault-free subsystem continues to provide restricted propulsion operation. Therefore, it would be impossible for Geil to disconnect the motor from the power supply network and short-circuit the stator windings of the motor while, at the same time, providing restricted propulsion operation. In fact, the Office Action **admits** that Geil does not teach intentionally short-circuiting the stator windings of one or more propulsion motors or disconnecting the motors from the power supply network prior to switching into a short circuit. See page 8, lines 6-9 of the Office Action. Accordingly, Applicant submits that Geil does not teach or suggest a switching arrangement for disconnecting the at least one motor unit from the electrical power network and for short-circuiting the stator windings of the at least one motor unit, as recited in Claim 9.

Further, Applicant submits that the combination of Geil and Alexanderson is improper because the Office Action has not provided any motivation to combine the respective teachings thereof.

To establish *prima facie* obviousness, all claim features must be taught or suggested by the prior art. M.P.E.P. § 2143.03. Also, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. M.P.E.P. § 2142. Because Geil and Alexanderson do not teach or suggest each and every feature recited in Claim 9 and because there is no motivation to combine the respective teachings thereof, Applicant respectfully submits that the Office Action has failed to establish *prima facie* obviousness.

Claims 10-15 and 24 depend from Claim 9 and, therefore, incorporate each and every feature recited therein. Accordingly, Applicant respectfully submits that Claims 10-15 and 24 should be deemed allowable for at least the same reasons Claim 9 is allowable, as well as for the additional subject matter recited therein.

Regarding the rejections of Claims 17 and 20, Claim 17 recites a method for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit in a system including, among other features, an electrical power network and a frequency converter connected to the electrical power network, the method comprising, among other steps, detecting a need for braking the propeller.

Claim 17 is rejected for the identical reasons used for rejecting Claim 1. See the Office Action at page 10, lines 11-12. However, as explained above, Alexanderson does **not** disclose, teach, or suggest a frequency converter. Moreover, after an exhaustive examination of Alexanderson, Applicant is unable to identify any teaching or suggestion wherein the propulsion system of Alexanderson detects a need for braking a propeller motor, as recited in 17. Further, Applicant notes that the Office Action has not identified any portion of Alexanderson or Geil allegedly teaching such a feature.

Accordingly, Applicant respectfully submits that Geil and Alexanderson, either alone or in combination, do not teach or suggest each and every feature recited in Claim 17, nor is there any motivation to combine the teachings of Alexanderson and Geil. As such, Applicant submits that Claim 17 is not rendered obvious by the teachings of Geil modified in view of Alexanderson.

Claim 20 recites a method for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit in a system including, among other features, an

electrical power network and a frequency converter connected to the electrical power network, the method including, among other steps, detecting a need for braking the at least one motor unit. Consequently, Applicant submits that Claim 20 should be deemed allowable for at least the same reasons Claims 1 and 17 are allowable.

Claim 18 depends from Claim 17, and Claim 21 depends from Claim 20. Therefore, Applicant submits that Claims 18 and 21 should be deemed allowable for at least the same reasons Claims 17 and 20 are allowable, as well as for the additional subject matter recited therein.

Regarding Claims 25 and 26, Claim 25 recites a system for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit, the system including, among other features, a propeller motor, an electrical power network, a frequency converter connected to the electrical power network, and a switching arrangement for detecting absence of supply power to the propeller motor and for short-circuiting the stator windings of the propeller motor.

Claim 26 recites a system for at least one of reducing the speed and limiting the motion of a motor of a propulsion unit, the system including, among other features, at least one motor unit, an electrical power network, a frequency converter connected to the electrical power network, and a switch arrangement for detecting absence of supply power to the at least one motor unit and for short-circuiting the stator windings of the at least one motor unit.

Applicant respectfully submits that Claims 25 and 26 should be deemed allowable for at least the same reasons Claim 1 is allowable. Additionally, Applicant submits Claims 25 and 26 should be deemed allowable, because Alexanderson and

Geil, either alone or in combination, do not teach or suggest a switch arrangement for detecting absence of supply power to the propeller motor/at least one motor unit and for short-circuiting the stator windings of the propeller motor/at least one motor unit, as recited in Claims 25 and 26, respectively.

Regarding Claims 27 and 28, Applicant respectfully submits that Alexanderson and Geil, either alone or in combination, do not teach or suggest the features of detecting absence of supply power to the propeller motor/at least one motor unit and short-circuiting the stator windings of the propeller motor/at least one motor unit, as recited in Claims 27 and 28, respectively. As such, Applicant respectfully submits that features are completely absent from Alexanderson and Geil.

Accordingly, Applicant respectfully requests withdrawal of the rejection.

Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1-7, 9-15, 17-18, 20-21, and 23-28, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 108306-00025.**

Respectfully submitted,
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Enclosures: Replacement Drawing Sheets for Drawing Figures 1-9
Petition for Extension of Time
Extra Claims Fee Transmittal Form
Check No. _____

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